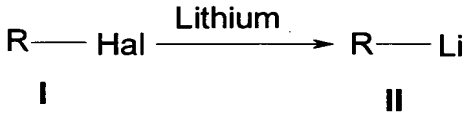
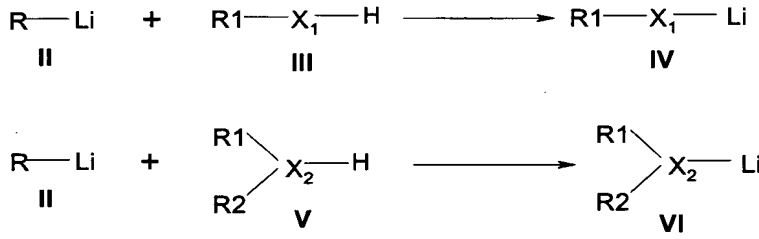
This listing of claims will replace all prior versions, and listings of claims in the application:

1.(Currently Amended) A process for forming heteroatom-carbon bonds, said process comprising reacting ~~in which~~ in a reaction mixture aliphatic or aromatic halogen compounds (I) ~~are firstly reacted~~ with lithium metal to generate a lithium compound (II), ~~this is then used for~~ deprotonating the compounds (III) or (V) by reaction with the lithium compound (II), and reacting the resulting lithium salts of the formula (IV) or (VI) ~~are finally reacted~~ with a suitable carbon electrophile ~~electrophiles~~ to form the heteroatom-carbon bond and produce the product (VIII) or (VIII) (equation I).

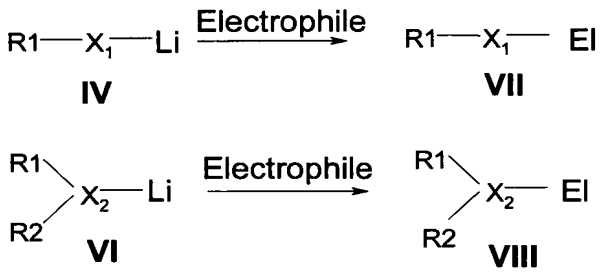
Step 1: Generation of the base



Step 2: Deprotonation of the substrate



Step 3: Reaction with an electrophile



(EQUATION I)

where, R is methyl, a primary, secondary or tertiary branched or unbranched alkyl radical having from 1 to 20 carbon atoms, a phenyl, aryl or heteroaryl radical, alkyl substituted by a radical selected from the group consisting of [[{]] methyl, primary, secondary or tertiary alkyl, phenyl, substituted phenyl, aryl, heteroaryl, alkoxy, dialkylamino, alkylthio [[}]], substituted or unsubstituted cycloalkyl having from 3 to 8 carbon atoms, and mixtures thereof;

Hal [[=]] is a halogen selected from the group consisting of fluorine, chlorine, bromine, [[or] iodine, and mixtures thereof,

X_1 is an oxygen or sulfur bound via a single bond to R1 or an sp2-hybridized nitrogen bound via a double bond to R1, and X_2 is an sp3-hybridized nitrogen;

the radicals R_1 and R_2 are independently of one another substituents selected from the group consisting of [[{]] hydrogen, methyl, primary, secondary or tertiary, cyclic or acyclic alkyl, alkenyl or alkynyl radicals having from 1 to 20 carbon atoms, substituted cyclic or acyclic alkyl groups, acyl groups, alkoxy, aryloxy, dialkylamino, alkylamino, arylamino, diarylamino, alkylarylamino, imino, sulfone, sulfonyl, phenyl, substituted phenyl, alkylthio,

diarylphosphino, dialkylphosphino, alkylarylphosphino, dialkylaminocarbonyl or diarylaminocarbonyl, monoalkylaminocarbonyl or monoarylaminocarbonyl, alkylarylaminocarbonyl, alkoxyalkyl, carboxylate, alkylcarboxylate, CN, [[or]] CHO, heteroaryl [[}]] and mixtures thereof, where two adjacent radicals R_1 and R_2 can together correspond to an aromatic or aliphatic ring.

2.(Currently Amended) The process as claimed in claim 1, wherein the compounds of the formula (III) ~~which are reacted are preferably~~ are selected from the group consisting of alcohols, thiols, phenols, thiophenols, oximes, hydrazones, and mixtures thereof, and the compounds of the formula (V) ~~which are reacted are preferably~~ are selected from the group consisting of amines, carboxamides, sulfonamides, [[and]] hydrazines, and mixtures thereof.

3.(Currently Amended) The process of claim 1 ~~as claimed in claim 1 or 2~~, wherein the electrophile [[used is a compound]] is selected from the [[following]] group consisting of [[:]] aryl or alkyl cyanates, isocyanates, oxirane, substituted oxiranes, aziridines, substituted aciridines, imines, aldehydes, ketones, organic halogen compounds, triflates, other sulfonates, sulfates, ketenes, carboxylic acid chlorides, carboxylic esters, thioesters and amides, carbonic esters, [[and]] phosgene derivatives, and mixtures thereof.

4. The process of claim 1 ~~as claimed in at least one of the preceding claims~~, wherein the reaction is carried out in an organic ether solvent.

5. The process ~~as claimed in at least one of the preceding claims, wherein the~~ of claim 1, wherein said reacting step is carried out at a reaction temperature [[is]] in the range from -100 to +70°C.

6.(Currently Amended) The process ~~as claimed in at least one of the preceding claims, wherein the concentrations~~ of claim 1, wherein a concentration of [[the]] aliphatic or aromatic intermediates of the formula (II) are in the range from 5 to 30% by weight.

7.(Currently Amended) The process of claim 1 ~~as claimed in at least one of the preceding claims~~, wherein ~~the amount of~~ lithium metal is added in an amount per mole of halogen reacted [[is]] ranging from 1.95 to 2.5 mol.

8.(Currently Amended) The process ~~as claimed in at least one of the preceding claims, wherein~~ of claim 1, further comprising adding organic redox systems ~~are added~~ to the reaction mixture.